

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/913,800

DATE: 09/05/2001  
TIME: 13:24:05

Input Set : A:\ES.txt  
Output Set : N:\CRF3\09052001\I913800.raw

3 <110> APPLICANT: Brett P. Monia  
4 Lex M. Cowsert  
6 <120> TITLE OF INVENTION: ANTISENSE MODULATION OF AKT-2 EXPRESSION  
8 <130> FILE REFERENCE: RTSP-0155  
C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/913,800  
C--> 11 <141> CURRENT FILING DATE: 2001-08-16  
13 <150> PRIOR APPLICATION NUMBER: 09/256,465  
14 <151> PRIOR FILING DATE: 1999-02-23  
16 <160> NUMBER OF SEQ ID NOS: 47  
18 <210> SEQ ID NO: 1  
19 <211> LENGTH: 1599  
20 <212> TYPE: DNA  
21 <213> ORGANISM: Homo sapiens  
23 <220> FEATURE:  
24 <221> NAME/KEY: CDS  
25 <222> LOCATION: (88)..(1533)  
27 <400> SEQUENCE: 1  
28 gagactgtgc cctgtccacg gtgcctcctg catgtcctgc tgcctgagc tgtcccgagc 60  
30 taggtgacag cgtaccacgc tgccacc atg aat gag gtg tct gtc atc aaa 111  
31 Met Asn Glu Val Ser Val Ile Lys  
32 1 5  
34 gaa ggc tgg ctc cac aag cgt ggt gaa tac atc aag acc tgg agg cca 159  
35 Glu Gly Trp Leu His Lys Arg Gly Glu Tyr Ile Lys Thr Trp Arg Pro  
36 10 15 20  
38 cgg tac ttc ctg ctg aag agc gac ggc tcc ttc att ggg tac aag gag 207  
39 Arg Tyr Phe Leu Leu Lys Ser Asp Gly Ser Phe Ile Gly Tyr Lys Glu  
40 25 30 35 40  
42 agg ccc gag gcc cct gat cag act cta ccc tta aac aac ttc tcc 255  
43 Arg Pro Glu Ala Pro Asp Gln Thr Leu Pro Pro Leu Asn Asn Phe Ser  
44 45 50 55  
46 gta gca gaa tgc cag ctg atg aag acc gag agg ccg cga ccc aac acc 303  
47 Val Ala Glu Cys Gln Leu Met Lys Thr Glu Arg Pro Arg Pro Asn Thr  
48 60 65 70  
50 ttt gtc ata cgc tgc ctg cag tgg acc aca gtc atc gag agg acc ttc 351  
51 Phe Val Ile Arg Cys Leu Gln Trp Thr Thr Val Ile Glu Arg Thr Phe  
52 75 80 85  
54 cac gtg gat tct cca gac gag agg gag gag tgg atg cgg gcc atc cag 399  
55 His Val Asp Ser Pro Asp Glu Arg Glu Glu Trp Met Arg Ala Ile Gln  
56 90 95 100  
58 atg gtc gcc aac agc ctc aag cag cgg gcc cca ggc gag gac ccc atg 447  
59 Met Val Ala Asn Ser Leu Lys Gln Arg Ala Pro Gly Glu Asp Pro Met  
60 105 110 115 120  
62 gac tac aag tgt ggc tcc ccc agt gac tcc tcc acg act gag gag atg 495  
63 Asp Tyr Lys Cys Gly Ser Pro Ser Asp Ser Ser Thr Thr Glu Glu Met  
64 125 130 135  
66 gaa gtg gcg gtc agc aag gca cgg gct aaa gtg acc atg aat gac ttc 543  
67 Glu Val Ala Val Ser Lys Ala Arg Ala Lys Val Thr Met Asn Asp Phe

ENTERED

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68		140		145		150		
70	gac	tat	ctc	aaa	ctc	ctt	ggc	aag gga acc ttt ggc aaa gtc atc ctg 591
71	Asp	Tyr	Leu	Lys	Leu	Leu	Gly Lys Gly Thr Phe Gly Lys Val Ile Leu	
72		155		160		165		
74	gtg	cgg	gag	aag	gcc	act	ggc cgc tac tac gcc atg aag atc ctg cga 639	
75	Val	Arg	Glu	Lys	Ala	Thr	Gly Arg Tyr Tyr Ala Met Lys Ile Leu Arg	
76		170		175		180		
78	aag	gaa	gtc	atc	att	gcc	aag gat gaa gtc gct cac aca gtc acc gag 687	
79	Lys	Glu	Val	Ile	Ile	Ala	Lys Asp Glu Val Ala His Thr Val Thr Glu	
80	185			190		195		200
82	agc	cgg	gtc	ctc	cag	aac	acc agg cac ccg ttc ctc act gcg ctg aag 735	
83	Ser	Arg	Val	Leu	Gln	Asn	Thr Arg His Pro Phe Leu Thr Ala Leu Lys	
84			205			210		215
86	tat	gcc	ttc	cag	acc	cac	gac cgc ctg tgc ttt gtg atg gag tat gcc 783	
87	Tyr	Ala	Phe	Gln	Thr	His	Asp Arg Leu Cys Phe Val Met Glu Tyr Ala	
88			220			225		230
90	aac	ggg	ggt	gag	ctg	ttc	ttc cac ctg tcc cgg gag cgt gtc ttc aca 831	
91	Asn	Gly	Gly	Glu	Leu	Phe	Phe His Leu Ser Arg Glu Arg Val Phe Thr	
92		235		240		245		
94	gag	gag	cgg	gcc	cgg	ttt	tat ggt gca gag att gtc tcg gct ctt gag 879	
95	Glu	Glu	Arg	Ala	Arg	Phe	Tyr Gly Ala Glu Ile Val Ser Ala Leu Glu	
96		250		255		260		
98	tac	ttg	cac	tcg	cgg	gac	gtg gta tac cgc gac atc aag ctg gaa aac 927	
99	Tyr	Leu	His	Ser	Arg	Asp	Val Val Tyr Arg Asp Ile Lys Leu Glu Asn	
100		265		270		275		280
102	ctc	atg	ctg	gac	aaa	gat	ggc cac atc aag atc act gac ttt ggc ctc 975	
103	Leu	Met	Leu	Asp	Lys	Asp	Gly His Ile Lys Ile Thr Asp Phe Gly Leu	
104			285			290		295
106	tgc	aaa	gag	ggc	atc	agt	gac ggg gcc acc atg aaa acc ttc tgt ggg 1023	
107	Cys	Lys	Glu	Gly	Ile	Ser	Asp Gly Ala Thr Met Lys Thr Phe Cys Gly	
108			300			305		310
110	acc	ccg	gag	tac	ctg	gcg	cct gag gtg ctg gag gac aat gac tat ggc 1071	
111	Thr	Pro	Glu	Tyr	Leu	Ala	Pro Glu Val Leu Glu Asp Asn Asp Tyr Gly	
112			315			320		325
114	cgg	gcc	gtg	gac	tgg	tgg	ggg ctg ggt gtg gtc atg tac gag atg atg 1119	
115	Arg	Ala	Val	Asp	Trp	Trp	Gly Leu Gly Val Val Met Tyr Glu Met Met	
116		330		335		340		
118	tgc	ggc	cgc	ctg	ccc	ttc	tac aac cag gac cac gag cgc ctc ttc gag 1167	
119	Cys	Gly	Arg	Leu	Pro	Phe	Tyr Asn Gln Asp His Glu Arg Leu Phe Glu	
120		345		350		355		360
122	ctc	atc	ctc	atg	gaa	gag	atc cgc ttc ccg cgc acg ctc agc ccc gag 1215	
123	Leu	Ile	Leu	Met	Glu	Glu	Ile Arg Phe Pro Arg Thr Leu Ser Pro Glu	
124			365			370		375
126	gcc	aag	tcc	ctg	ctt	gct	ggg ctg ctt aag aag gac ccc aag cag agg 1263	
127	Ala	Lys	Ser	Leu	Leu	Ala	Gly Leu Leu Lys Lys Asp Pro Lys Gln Arg	
128			380			385		390
130	ctt	ggt	ggg	ggg	ccc	agc	gat gcc aag gag gtc atg gag cac agg ttc 1311	
131	Leu	Gly	Gly	Gly	Pro	Ser	Asp Ala Lys Glu Val Met Glu His Arg Phe	
132			395			400		405

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```
134   ttc ctc agc atc aac tgg cag gac gtg gtc cag aag aag ctc ctg cca   1359
135   Phe Leu Ser Ile Asn Trp Gln Asp Val Val Gln Lys Lys Leu Leu Pro
136       410                               415                               420
138   ccc ttc aaa cct cag gtc acg tcc gag gtc gac aca agg tac ttc gat   1407
139   Pro Phe Lys Pro Gln Val Thr Ser Glu Val Asp Thr Arg Tyr Phe Asp
140       425                               430                               435                               440
142   gat gaa ttt acc gcc cag tcc atc aca atc aca ccc cct gac cgc tat   1455
143   Asp Glu Phe Thr Ala Gln Ser Ile Thr Ile Thr Pro Pro Asp Arg Tyr
144       445                               450                               455
146   gac agc ctg ggc tta ctg gag ctg gac cag cgg acc cac ttc ccc cag   1503
147   Asp Ser Leu Gly Leu Leu Glu Leu Asp Gln Arg Thr His Phe Pro Gln
148       460                               465                               470
150   ttc tcc tac tcg gcc agc atc cgc gag tga gcagtctgcc cacgcagagg   1553
151   Phe Ser Tyr Ser Ala Ser Ile Arg Glu
152       475                               480
154   acgcacgctc gctgccatca ccgctgggtg gttttttacc cctgcc   1599
157 <210> SEQ ID NO: 2
158 <211> LENGTH: 20
159 <212> TYPE: DNA
160 <213> ORGANISM: Artificial Sequence
162 <220> FEATURE:
163 <223> OTHER INFORMATION: PCR Primer ✓
165 <400> SEQUENCE: 2
166   agcagaatgc cagctgatga   20
169 <210> SEQ ID NO: 3
170 <211> LENGTH: 20
171 <212> TYPE: DNA
172 <213> ORGANISM: Artificial Sequence
174 <220> FEATURE:
175 <223> OTHER INFORMATION: PCR Primer ✓
177 <400> SEQUENCE: 3
178   gcaggcagcg tatgacaaag   20
181 <210> SEQ ID NO: 4
182 <211> LENGTH: 20
183 <212> TYPE: DNA
184 <213> ORGANISM: Artificial Sequence
186 <220> FEATURE:
187 <223> OTHER INFORMATION: PCR Probe ✓
189 <400> SEQUENCE: 4
190   accgagaggc cgcgacccaa   20
193 <210> SEQ ID NO: 5
194 <211> LENGTH: 19
195 <212> TYPE: DNA
196 <213> ORGANISM: Artificial Sequence
198 <220> FEATURE:
199 <223> OTHER INFORMATION: PCR Primer ✓
201 <400> SEQUENCE: 5
202   gaaggtgaag gtcggagtc   19
205 <210> SEQ ID NO: 6
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206 <211> LENGTH: 20  
207 <212> TYPE: DNA  
208 <213> ORGANISM: Artificial Sequence  
210 <220> FEATURE:  
211 <223> OTHER INFORMATION: PCR Primer ✓  
213 <400> SEQUENCE: 6  
214 gaagatggtg atgggatttc 20  
217 <210> SEQ ID NO: 7  
218 <211> LENGTH: 20  
219 <212> TYPE: DNA  
220 <213> ORGANISM: Artificial Sequence  
222 <220> FEATURE:  
223 <223> OTHER INFORMATION: PCR Probe ✓  
225 <400> SEQUENCE: 7  
226 caagcttccc gttctcagcc 20  
229 <210> SEQ ID NO: 8  
230 <211> LENGTH: 18  
231 <212> TYPE: DNA  
232 <213> ORGANISM: Artificial Sequence  
234 <220> FEATURE:  
235 <223> OTHER INFORMATION: Antisense Oligonucleotide ✓  
237 <400> SEQUENCE: 8  
238 tggacagggc acagtctc 18  
241 <210> SEQ ID NO: 9  
242 <211> LENGTH: 18  
243 <212> TYPE: DNA  
244 <213> ORGANISM: Artificial Sequence  
246 <220> FEATURE:  
247 <223> OTHER INFORMATION: Antisense Oligonucleotide ✓  
249 <400> SEQUENCE: 9  
250 gaggcaccgt ggacaggg 18  
253 <210> SEQ ID NO: 10  
254 <211> LENGTH: 18  
255 <212> TYPE: DNA  
256 <213> ORGANISM: Artificial Sequence  
258 <220> FEATURE:  
259 <223> OTHER INFORMATION: Antisense Oligonucleotide ✓  
261 <400> SEQUENCE: 10  
262 tgacagacac ctcatcca 18  
265 <210> SEQ ID NO: 11  
266 <211> LENGTH: 18  
267 <212> TYPE: DNA  
268 <213> ORGANISM: Artificial Sequence  
270 <220> FEATURE:  
271 <223> OTHER INFORMATION: Antisense Oligonucleotide ✓  
273 <400> SEQUENCE: 11  
274 ctttgatgac agacacct 18  
277 <210> SEQ ID NO: 12  
278 <211> LENGTH: 18

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279 <212> TYPE: DNA  
280 <213> ORGANISM: Artificial Sequence  
282 <220> FEATURE:  
283 <223> OTHER INFORMATION: Antisense Oligonucleotide ✓  
285 <400> SEQUENCE: 12  
286 ccagccttct ttgatgac 18  
289 <210> SEQ ID NO: 13  
290 <211> LENGTH: 18  
291 <212> TYPE: DNA  
292 <213> ORGANISM: Artificial Sequence  
294 <220> FEATURE:  
295 <223> OTHER INFORMATION: Antisense Oligonucleotide ✓  
297 <400> SEQUENCE: 13  
298 tgtggagcca gccttctt 18  
301 <210> SEQ ID NO: 14  
302 <211> LENGTH: 18  
303 <212> TYPE: DNA  
304 <213> ORGANISM: Artificial Sequence  
306 <220> FEATURE:  
307 <223> OTHER INFORMATION: Antisense Oligonucleotide ✓  
309 <400> SEQUENCE: 14  
310 gatgtattca ccacgctt 18  
313 <210> SEQ ID NO: 15  
314 <211> LENGTH: 18  
315 <212> TYPE: DNA  
316 <213> ORGANISM: Artificial Sequence  
318 <220> FEATURE:  
319 <223> OTHER INFORMATION: Antisense Oligonucleotide ✓  
321 <400> SEQUENCE: 15  
322 gtcttgatgt attcacca 18  
325 <210> SEQ ID NO: 16  
326 <211> LENGTH: 18  
327 <212> TYPE: DNA  
328 <213> ORGANISM: Artificial Sequence  
330 <220> FEATURE:  
331 <223> OTHER INFORMATION: Antisense Oligonucleotide ✓  
333 <400> SEQUENCE: 16  
334 ccaatgaagg agccgtcg 18  
337 <210> SEQ ID NO: 17  
338 <211> LENGTH: 18  
339 <212> TYPE: DNA  
340 <213> ORGANISM: Artificial Sequence  
342 <220> FEATURE:  
343 <223> OTHER INFORMATION: Antisense Oligonucleotide ✓  
345 <400> SEQUENCE: 17  
346 ctacggagaa gttgttta 18  
349 <210> SEQ ID NO: 18  
350 <211> LENGTH: 18  
351 <212> TYPE: DNA

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/913,800

DATE: 09/05/2001

TIME: 13:24:06

Input Set : A:\ES.txt

Output Set: N:\CRF3\09052001\I913800.raw

L:10 M:270 C: Current Application Number differs, Replaced Application Number  
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date